

Work Order ID 155911***155911***

Page 1

Wednesday, January 18, 2017 7:42:50 AM

Item ID: D3969-3	Accept	*N900040100*	Setup	Start	*NS1*
Revision ID:				Stop	*NS2*
Item Name: Spring (Basket Lid)					
Start Date: 1/30/2017	Start Qty: 10.00	*10*	Cust Item ID:		
Required Date: 2/6/2017	Req'd Qty: 10.00	*10*	Customer:		
Reference:					

Approvals:	Process Plan:	<u>DAS</u>	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	<u>21</u>	Date: JAN 20 2017	SPC (Y/N):	Date:		Stop	*NR2*
		<u>9-89</u>						

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3969	D

100		0.00							
100						10	JAN 25 2017	DAS	13
Purchasing	Memo	0.00						9-89	
Purchasing	Issue P/O: 35077								
	Order as per Dwg D3969								
	Possible supplier: LS Technologies								
	part#: SSA4/8-122-310-360N								
	Material release note is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110						10		DAS	6
Packaging	Memo	0.03						9-89	
Packaging	***Measure compression only at								
	5mm on gas spring***								

FEB 01 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY						
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐	Power Loss/Surge ☐	☐	Positioned Wrong ☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐	Folio/Program ☐	☐	Outside Dimensions ☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐	Grain ☐	☐	Over/Under tolerance ☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐	Weld ☐	☐	Part Incorrect ☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐	Wrong Stock Pulled ☐	☐	Part Lost/Missing ☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐	Out of Sequence ☐	☐	Part Moved ☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐	Off-set ☐	☐	Drawing ☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐	Mislabeled ☐	☐	Finish ☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐	Fit/Function ☐	☐	Misread ☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐	Misaligned/off center ☐	☐	Turning Sequence ☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	☐	Past Due ☐								

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Page 2

Wednesday, January 18, 2017 7:42:50 AM

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Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC6- Inspect dimensions to drawing Memo ***Measure compression only at 5mm on gas spring***	0.00 0.03				<u>10</u>			DAS 38 9-88 FEB 28 2017
122 *122* Small Fab Small Fab	CRIMP END FITTING AT LOCATION SHOWN ON DWG (SEE NOTE 8) ***IF NOT MADE BY VENDOR***	0.00 0.13							
124 *124* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.03							

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Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

Work Order ID 155911

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155911

Page 3

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Required Date:	2/6/2017	Req'd Qty:	10.00	*10*	Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <i>JB04</i>	0.00							
130									
Packaging	Memo	0.02				<i>10</i>	MAR 03 2017		<i>DAS</i> <i>6</i> <i>9-89</i>
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.17							<i>17/3/2</i> <i>JD</i>
Quality Control									

DAS
21
9-89 MAR 02 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Description Work Order Deviation				Disposition					
				Completed By					
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Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

Tuesday, January 17, 2017 2:10:13 PM

Page 1

Work Order ID: 155911

155911

Parent Item: D3969-3

D3969-3

Parent Item Name: Spring (Basket Lid)

Start Date: 1/30/2017

Required Date: 2/6/2017

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP RevA: new issue DD 09.11.30 verified by:EC
per revC DD 10.03.16 verified by:EC

IPP Rev:B as

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

SSA4/8-122-310-360N

Purchased

No

110

Each

0.0000

1

10

SSA4/8-122-310-360N

Gas Spring

DAS
6
9-89

MAR 03 2017

DQA: _____ Date: _____



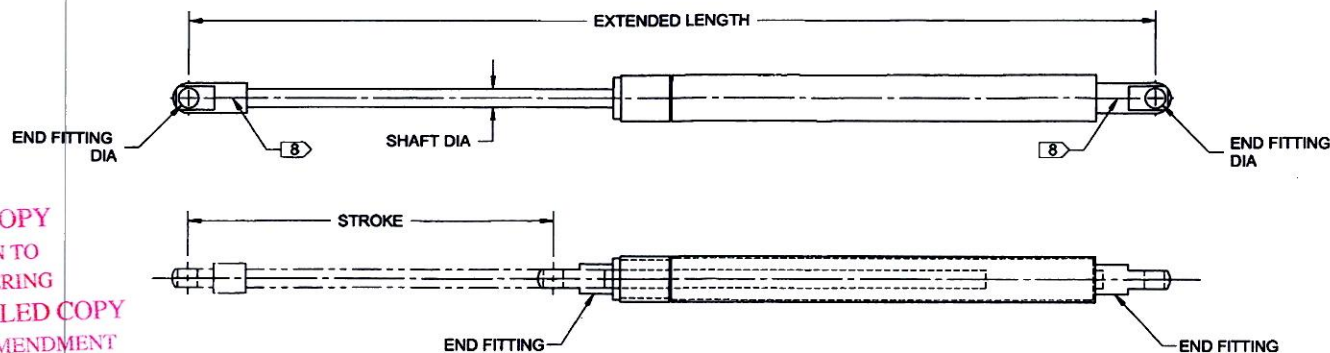
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
3			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

SPECIFICATION CONTROL DRAWING



D3969-X SPRING

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 155911 MLJ
17-01-20

DART PART NUMBER	STROKE (mm/in)	EXTENDED LENGTH (mm/in)	SHAFT DIA (mm/in)	FORCE (N/lbs)	END FITTING TYPE	END FITTING DIA (in)	CASING MATERIAL	PREFERRED SUPPLIER	SUPPLIER PART NUMBER	WEIGHT APPROX
D3969-1	122/4.80	315/12.40	6/0.24	310/69.7	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/6-122-315-310N	0.27 lbs
D3969-3	122/4.80	315/12.40	8/0.31	360/80.9	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/8-122-310-360N	0.32 lbs
D3969-5	122/4.80	315/12.40	6/0.24	133/29.7	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/6-122-315-133N	0.27 lbs
D3969-7	122/4.80	315/12.40	6/0.24	222/50.0	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/6-122-315-225N	0.27 lbs
D3969-9	130/5.12	343/13.50	8/0.31	360/80.9	BLADE	0.257	STAINLESS STEEL	LS TECHNOLOGIES	SSA4/8-130-343-360N	0.35 lbs

NOTES:

- 1) MATERIAL: SEE CHART
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3969-X" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: SEE CHART
- 8) CRIMP END FITTING AT APPROXIMATE LOCATION SHOWN, PER MANUFACTURERS REQUIREMENTS

RELEASED
2016-05-19
2016-581

D	ADDED -71-9	ML	16.05.12
C	REDRAWN IN SW, ADDED -3 & -5; ADDED SHAFT DIA COLUMN TO CHART. FORCE FOR -1 CORRECTED (WAS 60.0 lbs).	JPH	10.03.04
B	DRAWING RENAMED WAS: GAS SPRING (BASKET LID). NOTE 8 ADDED.	AJS	09.11.10
A	NEW ISSUE	AJS	09.07.27
REV.	DESCRIPTION	BY	DATE
DESIGN	AS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	AJS	DRAWING NO.	REV. D
MFG. APPR.	DD	D3969	SHEET 1 OF 1
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	BASKET LID SPRING	NTS
DATE	16.05.12	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35077

Purchase Order Date 1/25/2017

PO Print Date 1/25/2017

Page Number 1 of 2

Order From :

VC-LST0001

Ship To : DART AEROSPACE LTD

LS TECHNOLOGIES INC.
314 JESSOP AVE
SASKATOON, SK S7N 1Y6
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

JAN 25 2017

Contact Name
Vendor Phone 306 683 5000

Ship To Contact
Ship To Phone
Ship Via: FedEx Overnight collect
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB EXW - (Ex Works)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	SSA4/8-122-310-360N AS PER D3969 REV. D B155911	Gas Spring JAS 38 1-89	1/31/2017 Yes 1/31/2017		10.00 Each	\$65.00	\$650.00
Line Total:							\$650.00
2	B6-190-475-070N AS PER DWG D3552 REV. L B155820	Door Prop	1/31/2017 Yes 1/31/2017		8.00 Each	\$32.50	\$260.00
Line Total:							\$260.00
4	6/15-164/50-115N AS PER DWG D2807 REV. E B156054	Gas Spring	1/31/2017 Yes 1/31/2017		12.00 Each	\$63.90	\$766.80
Line Total:							\$766.80

PO Instructions: Fedex Acc#151793240

Note:

1/25/2017



LS Technologies Inc

314 Jessop Ave

Saskatoon, SK, S7N 1Y6

Ph: (306) 683-5000 Fax: (306) 683-6403

Certificate of Conformance

Jan 30, 2017

This is to certify that the parts listed below meets specifications as required by your order.

10 Units : D3969-3 B155911 Stainless Gas Spring

8 Units : D3552-23 B155820 Gas Spring

12 Units : D2807-041 B156054 Stainless Gas Spring

Country of Manufacture : Canada

Date of Manufacture : Jan 2017

This product is ROHS compliant.

Purchase Order # 35077

Inv# 16014

L S Technologies Inc Canada

A handwritten signature in black ink, appearing to be 'Nolan Fehr', written over a horizontal line.

Nolan Fehr
President

LS Technologies Inc
314 Jessop Ave
Saskatoon, SK S7N 1Y6

Ph: 306-683-5000 Fax: 306-683-6403

Packing Slip

P.O. No.	Date	Invoice #
35077	1/30/2017	16014

Bill to:
Dart Aerospace Ltd 1270 Aberdeen St. Hawkesbury, ON K6A 1K7

Ship to:
Main Finished Goods Location Dart Aerospace Ltd 1270 Aberdeen St. Hawkesbury, ON K6A 1K7

Ship	Via	FOB
1/30/2017	Fed-Ex	

Qty	Description
10	D3969-3 B155911 Stainless Gas Spring (SSA4/8-122-310-360N)
8	D3552-23 B155820 Gas Spring (B6-190-475-070N)
12	D2807-041 B156054 Stainless Gas Spring (6/15-164/50-115N)
Shipping Via FED EX Tracking # 778307449273	

FEB 01 2017

DAS
6
9-89

DAS
38
9-89

Order checked by :

